JVC

SCHEMATIC DIAGRAMS

COLOR TELEVISION

AV-30W767/S,
AV-30W777/S

CD-ROM No.SML200607

BASIC CHASSIS
SR2

COPYRIGHT © 2006 Victor Company of Japan, Limited

No.YA390
2006/7

AV-30W767/S, AV-30W777/S

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

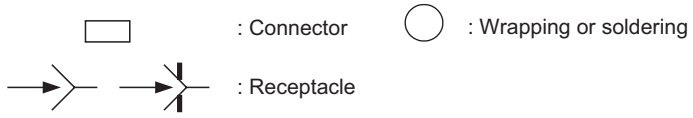
No unit	: [μH]
Others	: As specified

(4)Power Supply

∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

CONTENTS

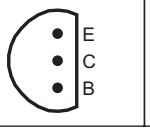
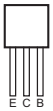
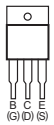
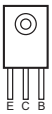
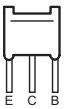
SEMICONDUCTOR SHAPES 2-2
BLOCK DIAGRAM 2-3
CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM 2-5
CRT SOCKET PWB CIRCUIT DIAGRAM 2-13
POWER & DEF PWB CIRCUIT DIAGRAM 2-15
FRONT CONTROL PWB CIRCUIT DIAGRAM 2-17
SIDE CONTROL PWB CIRCUIT DIAGRAM 2-19
SD CARD PWB CIRCUIT DIAGRAM 2-21
PATTERN DIAGRAMS
MAIN PWB PATTERN 2-23
CRT SOCKET PWB PATTERN 2-27
POWER & DEF PWB PATTERN 2-29
FRONT CONTROL PWB PATTERN 2-33
SIDE CONTROL PWB PATTERN 2-34
SD CARD PWB PATTERN 2-34
VOLTAGE CHATRS 2-35
WAVEFORMS 2-36

USING P.W. BOARD

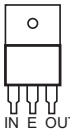
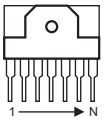
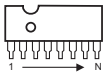
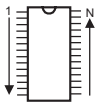
P.W.B ASS'Y name	AV-30W767/S	AV-30W777/S
MAIN P.W. BOARD	SSR-1503A-M2	SSR-1502A-M2
POWER & DEF P.W. BOARD	SSR-2501A-M2	←
CRT SOCKET P.W. BOARD	SSR-3051A-M2	←
FRONT CONTROL P.W. BOARD	SSR-8051A-M2	←
SIDE CONTROL P.W. BOARD	SSR-8151A-M2	←
SD CARD P.W. BOARD	SSR-8551A-M2	←

SEMICONDUCTOR SHAPES

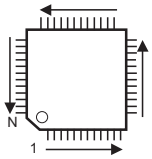
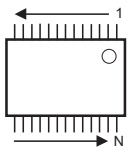
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR

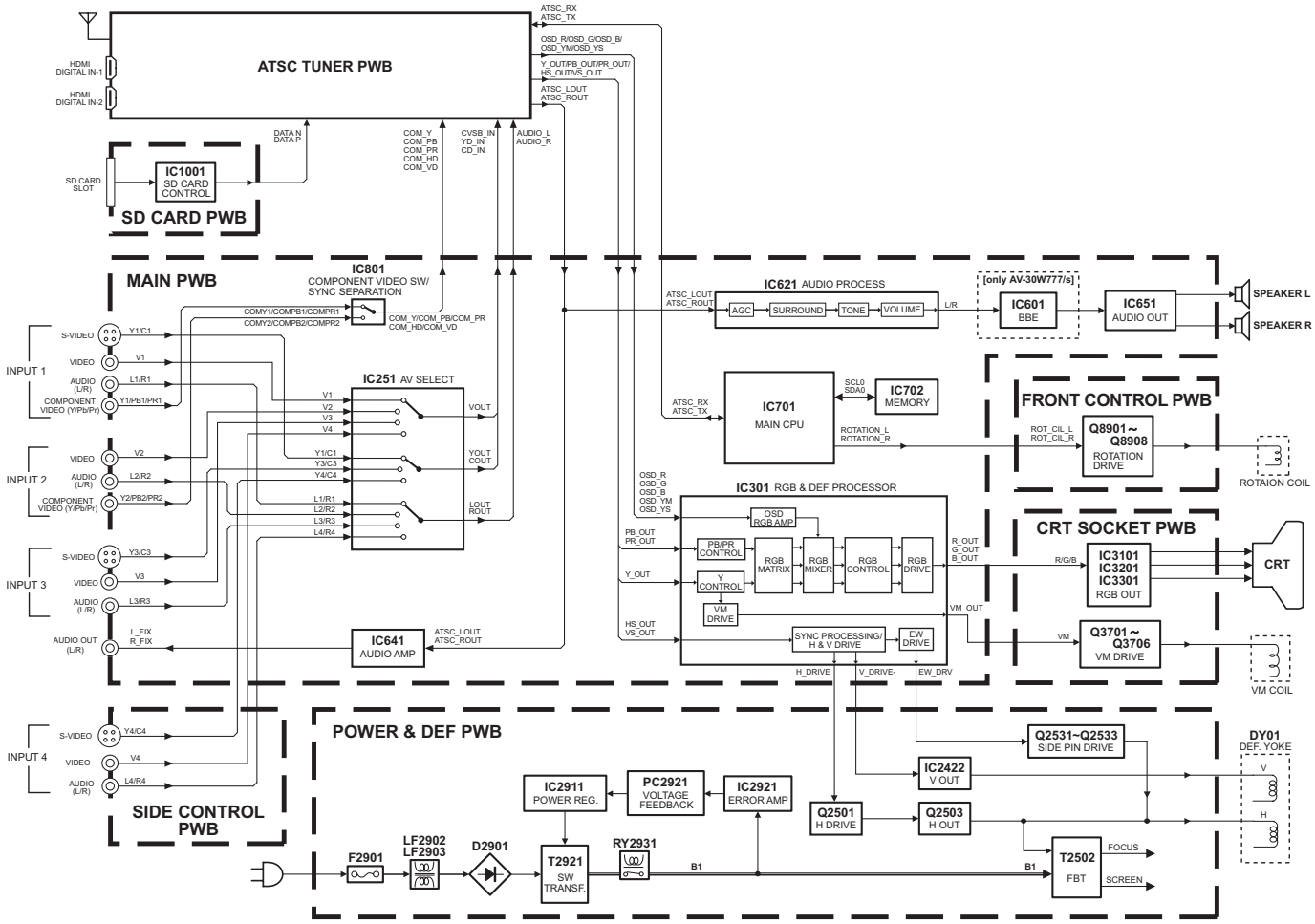
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

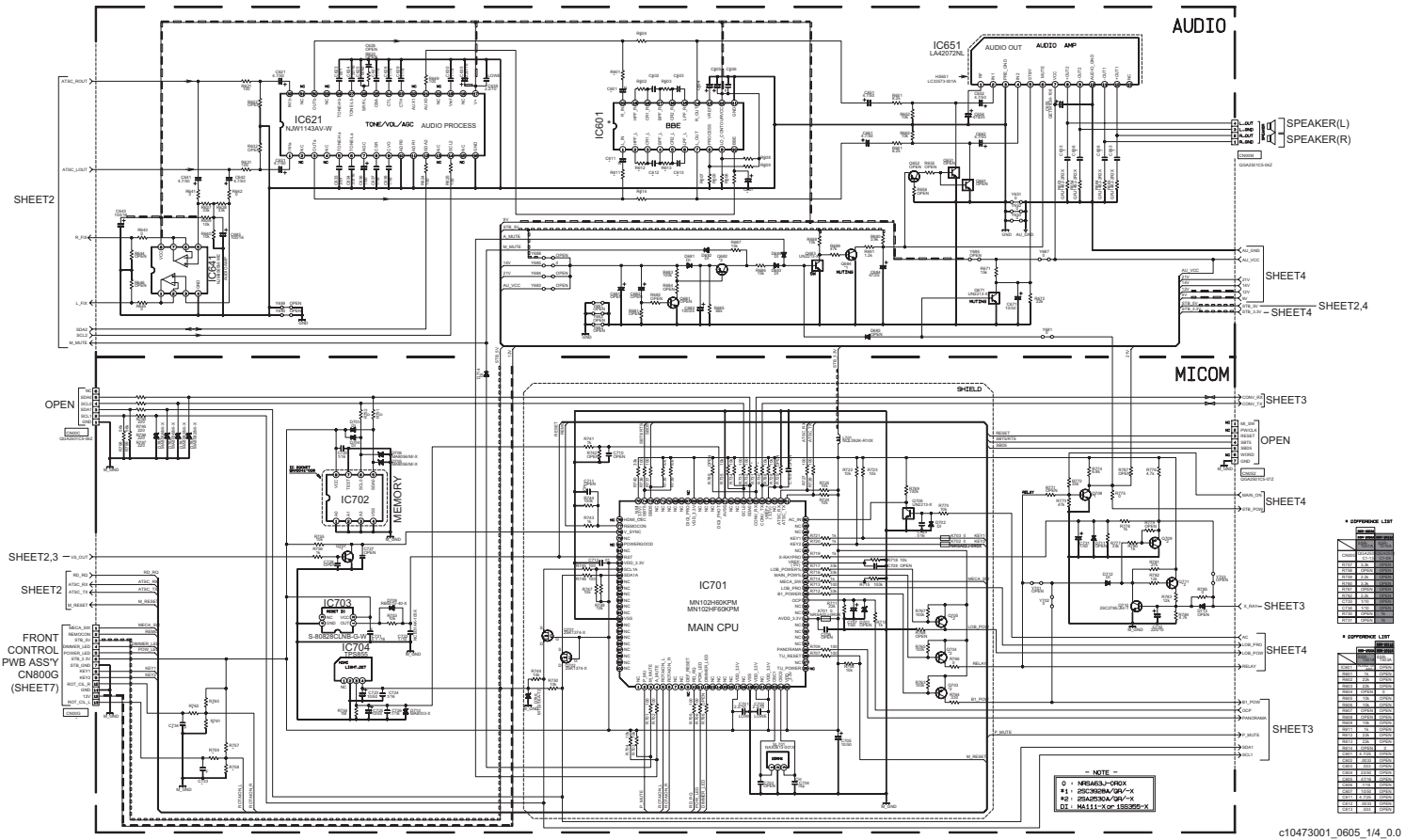
MAIN PWB CIRCUIT DIAGRAM (1/4) SHEET1

MAIN PWB ASS'Y(1/4)

SSR-1503A-M2 [AV-30W767/S]

SSR-1502A-M2 [AV-30W777/S]

NOTE : Refer to the part list for the part number of IC702.

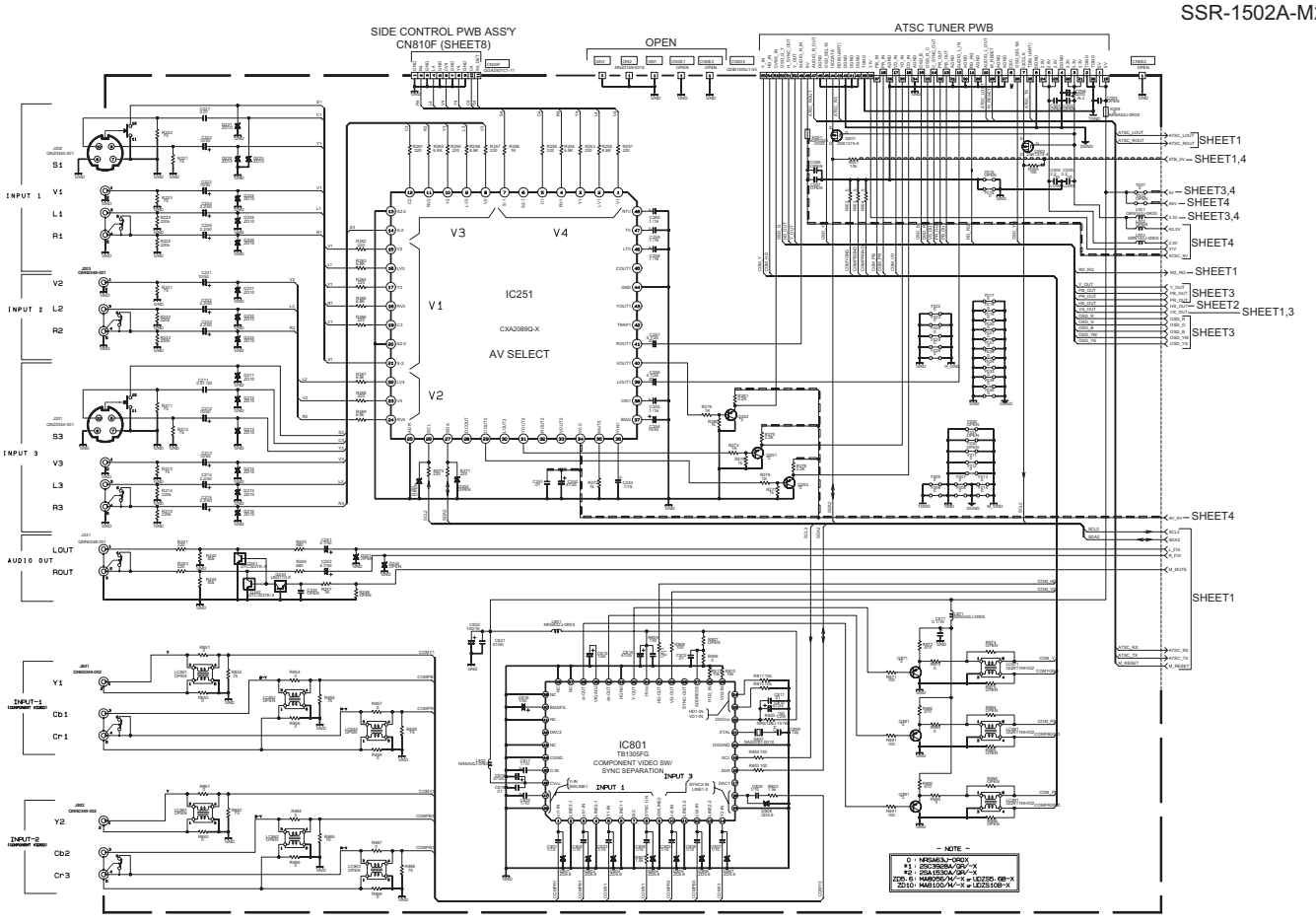


c10473001_0605_1/4_0.0

(No.YA390)2-5 2-6(No.YA390)

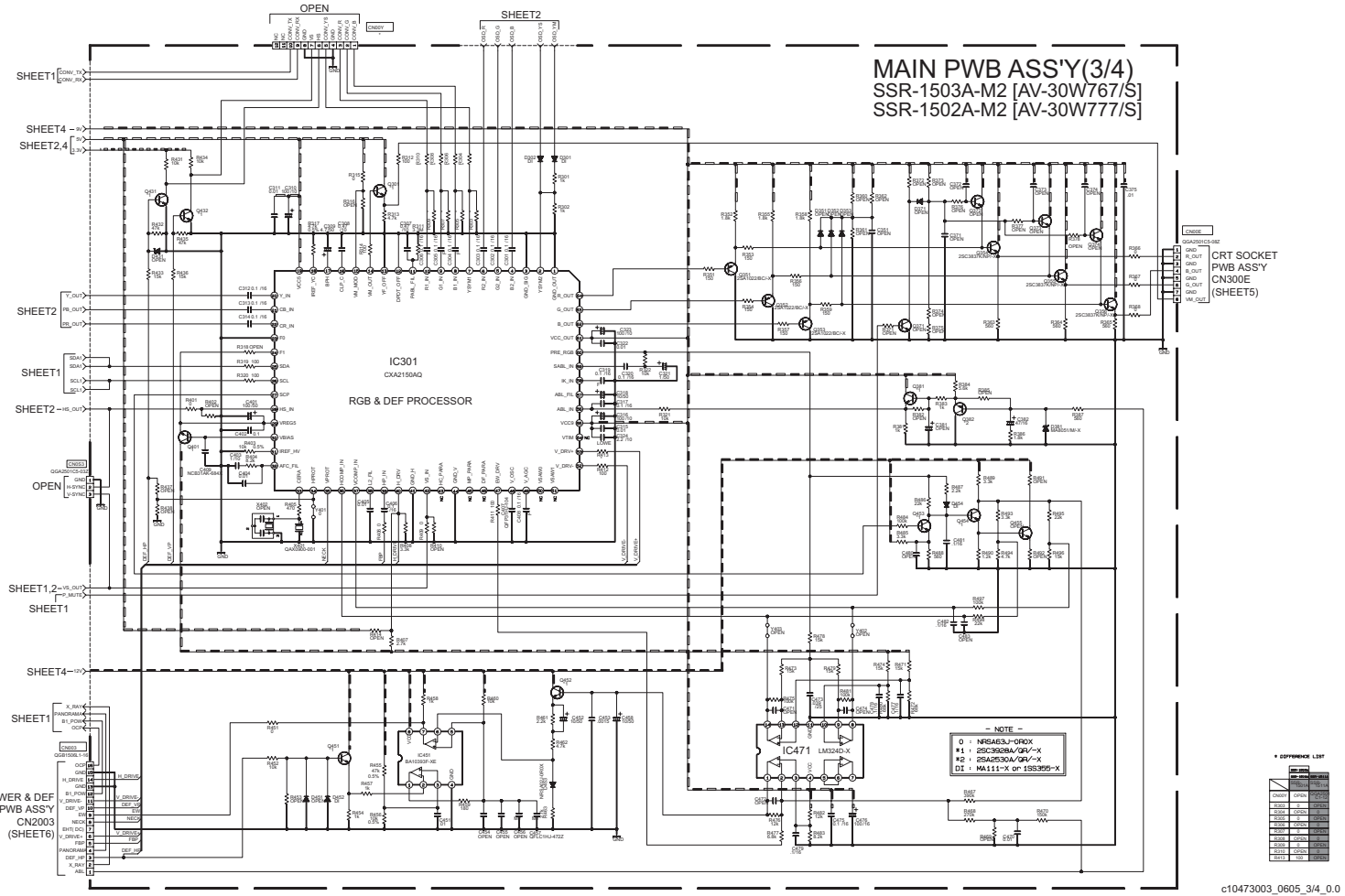
MAIN PWB ASS'Y(2/4)

SSR-1503A-M2 [AV-30W767/S]
SSR-1502A-M2 [AV-30W777/S]



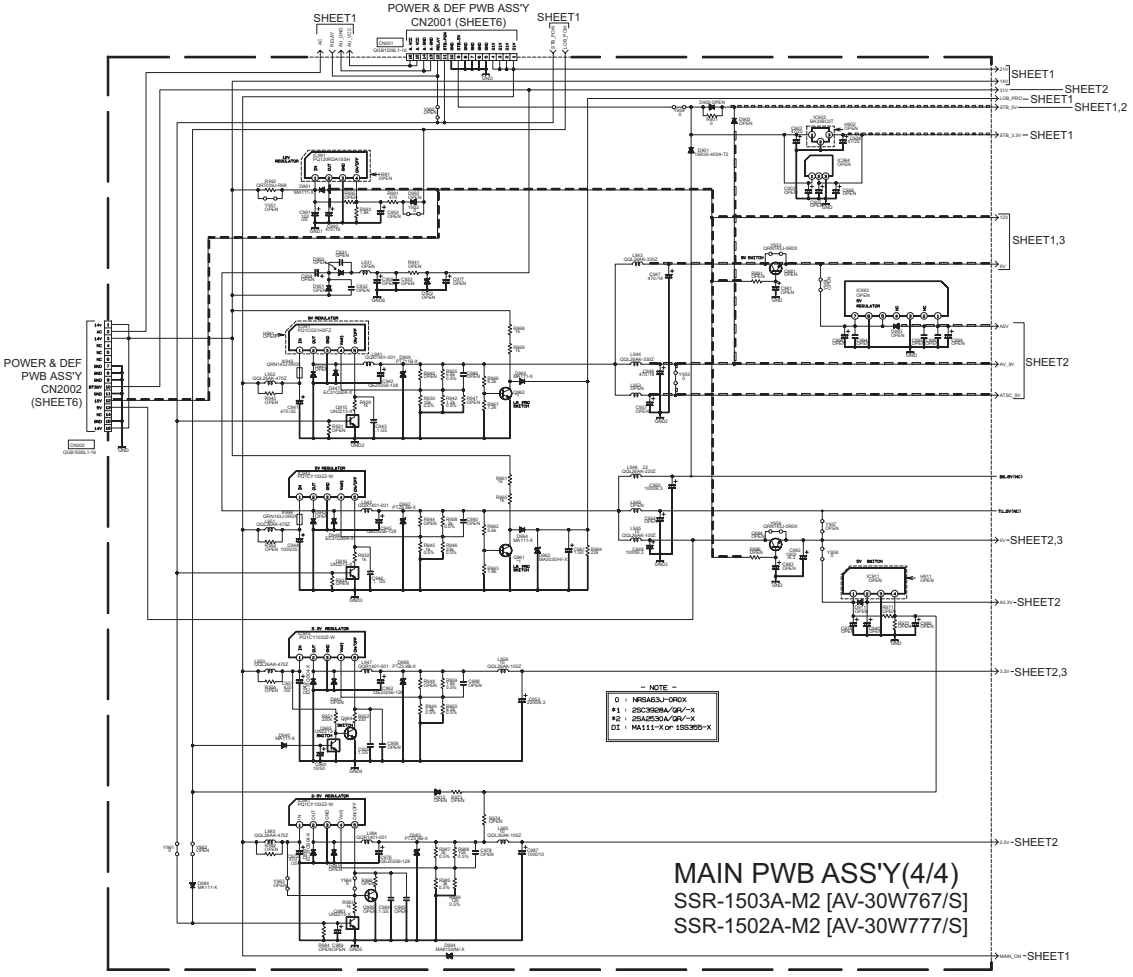
c10473002_0605_2/4_0.0

MAIN PWB CIRCUIT DIAGRAM (3/4) SHEET 3



c10473003_0605_3/4_0.0

MAIN PWB CIRCUIT DIAGRAM (4/4) SHEET 4

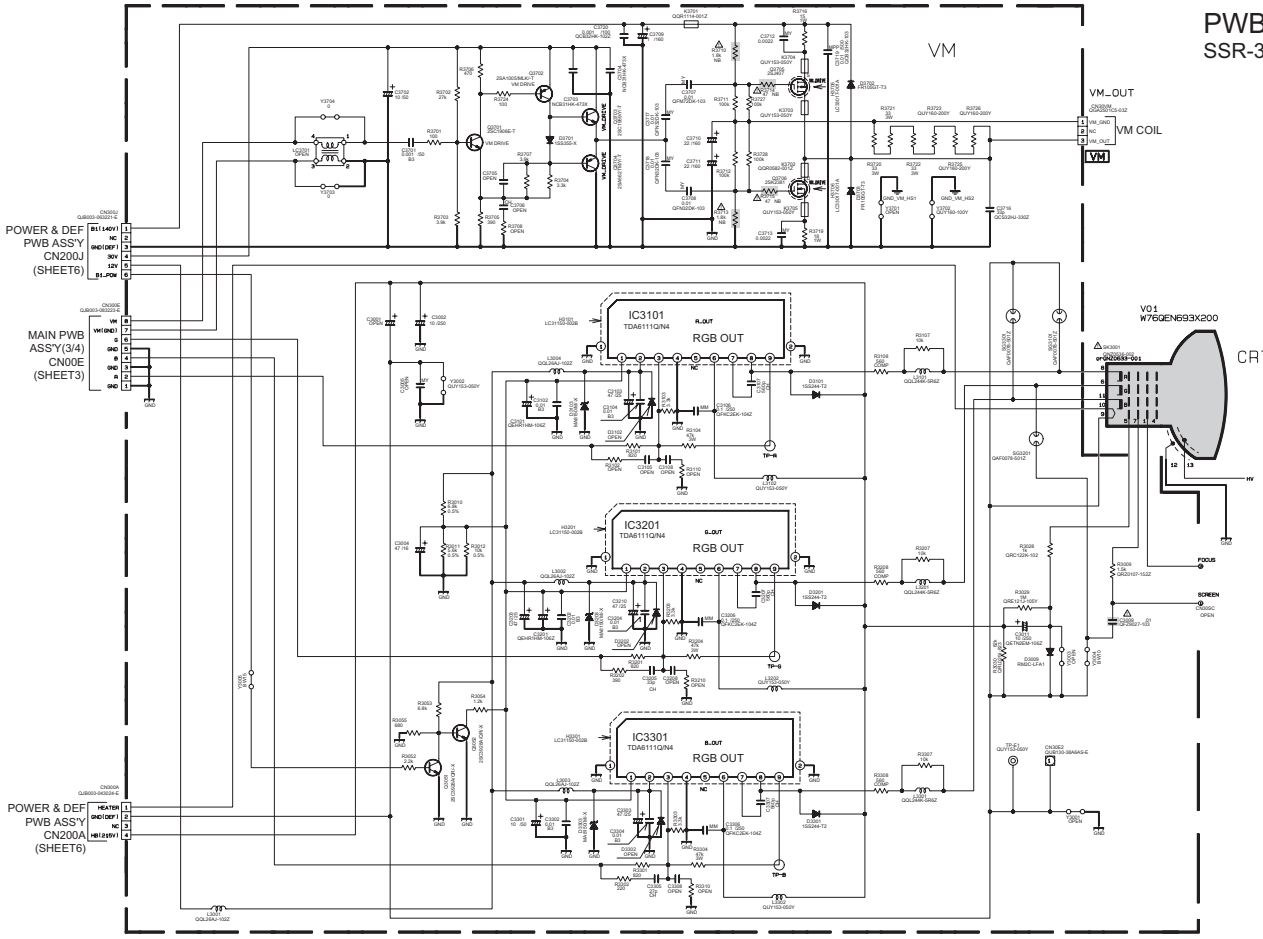


c10473004_0605_4/4_0.0

CRT SOCKET PWB CIRCUIT DIAGRAM SHEET 5

CRT SOCKET PWB ASS'Y

SSR-3051A-M2

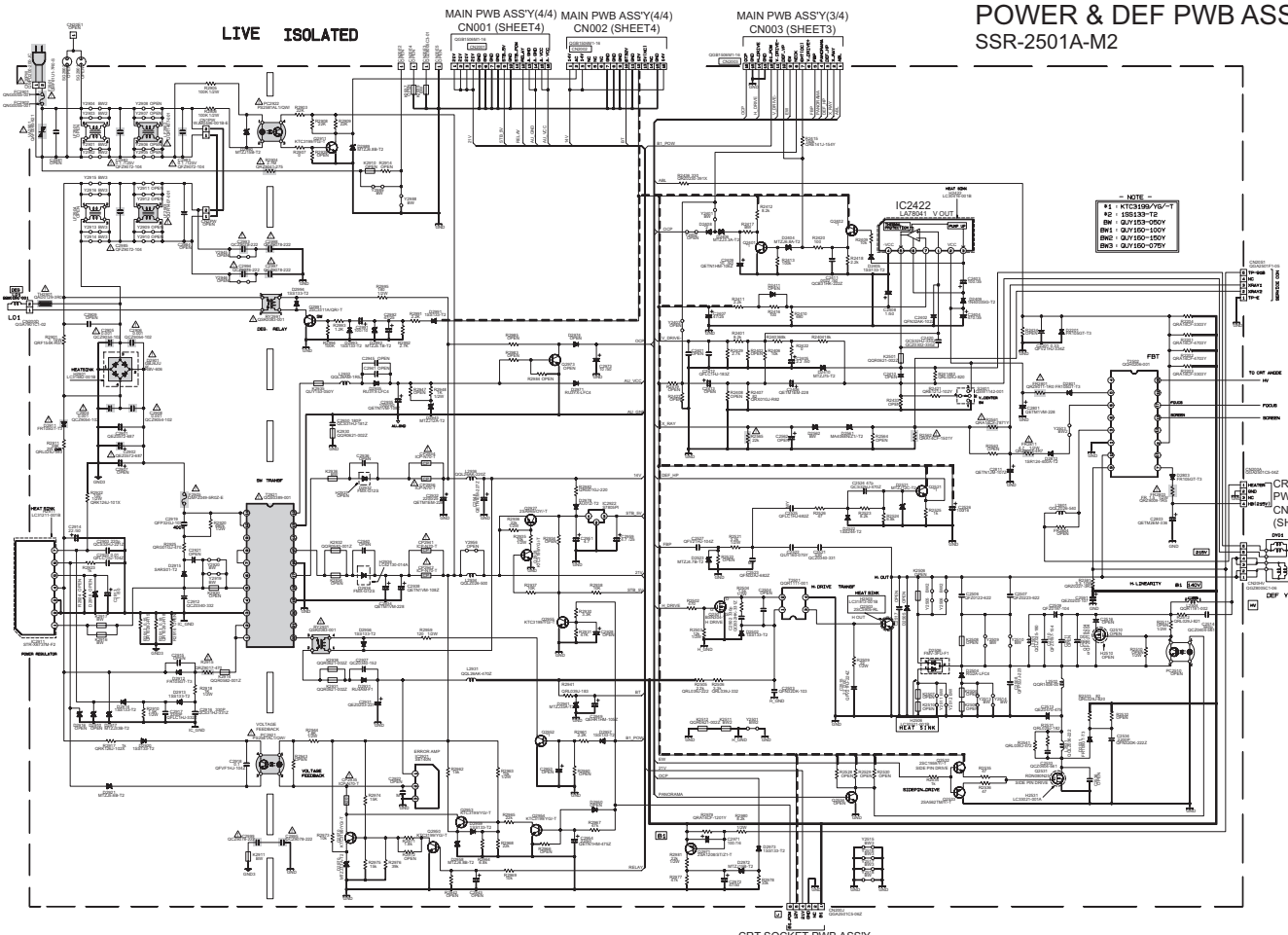


c201840001_0605_1/1_0.0

POWER & DEF PWB CIRCUIT DIAGRAM SHEET 6

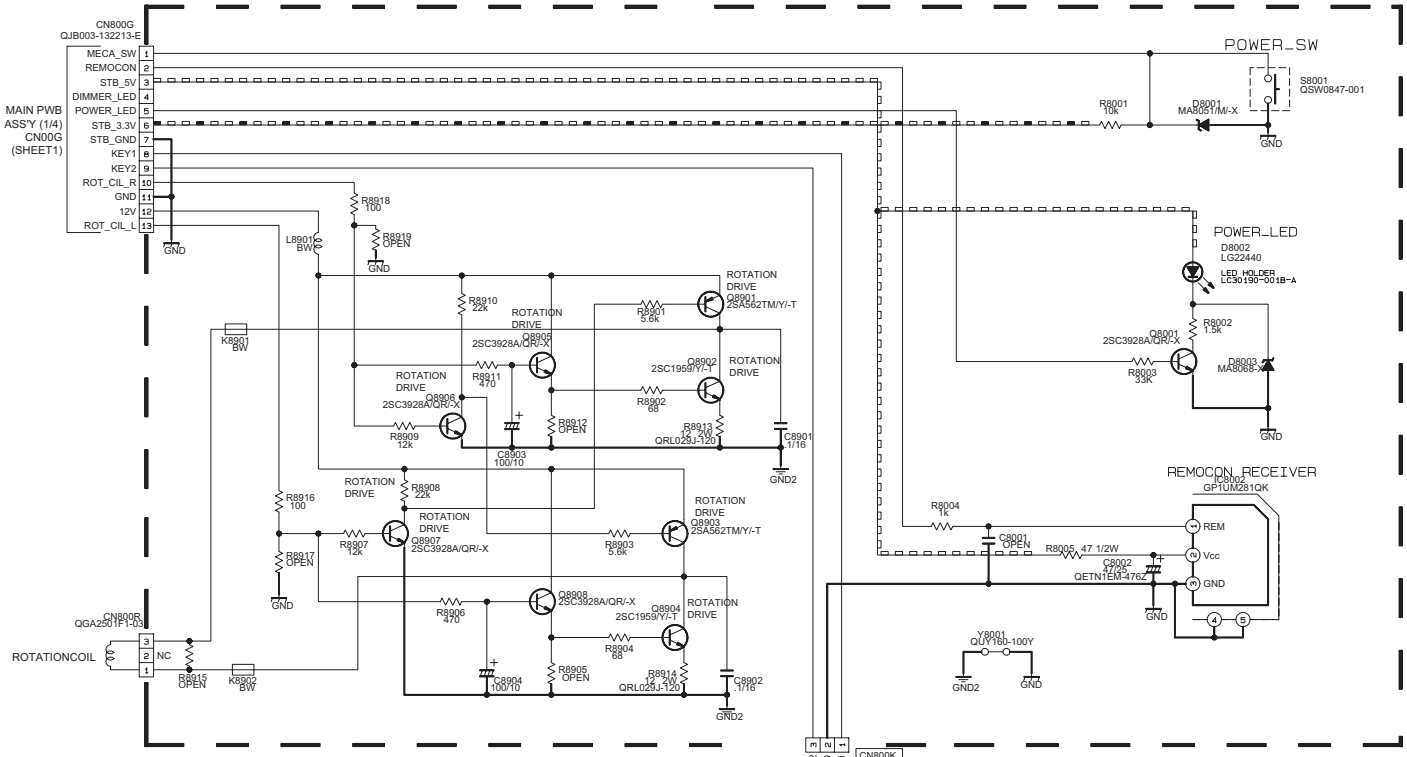
POWER & DEF PWB ASS'Y

SSR-2501A-M2



c10474001_0605_1/1_0.0

FRONT CONTROL PWB CIRCUIT DIAGRAM SHEET 7

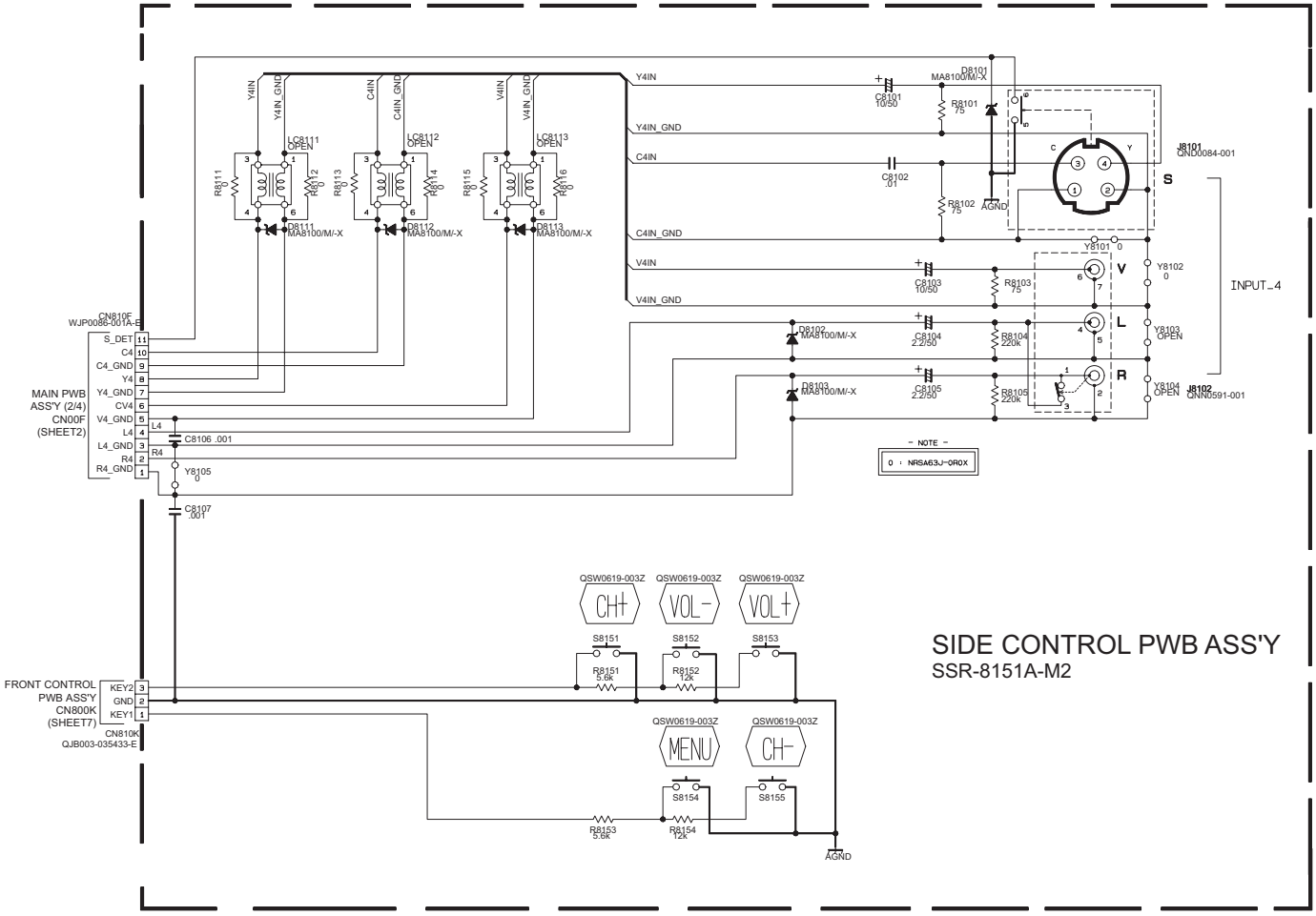


FRONT CONTROL PWB ASS'Y

SSR-8051A-M2

c30208001_0605_1/1_0.0

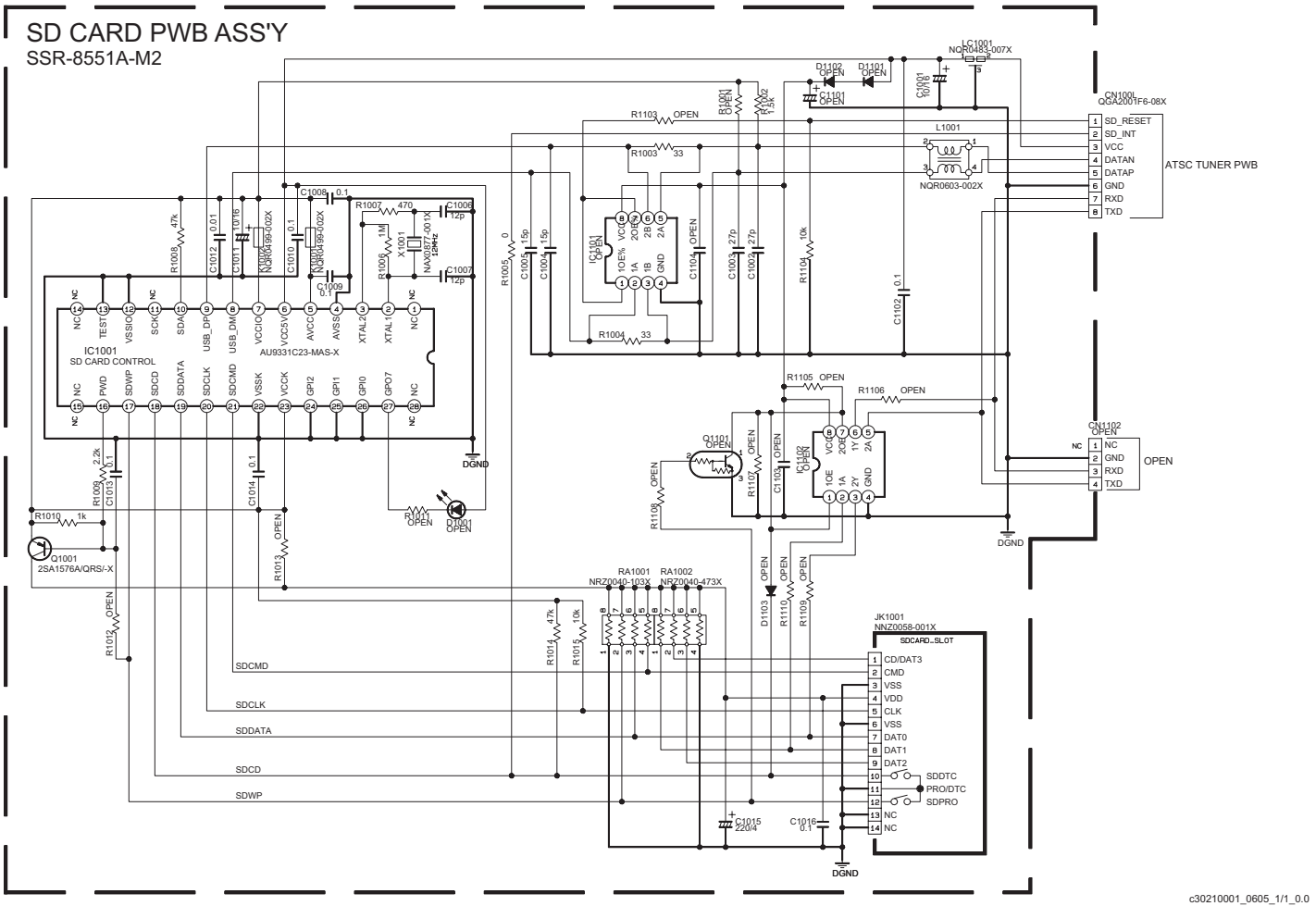
SIDE CONTROL PWB CIRCUIT DIAGRAM SHEET 8



SIDE CONTROL PWB ASS'Y
SSR-8151A-M2

c30209001_0605_1/1_0.0

SD CARD PWB CIRCUIT DIAGRAM SHEET 9

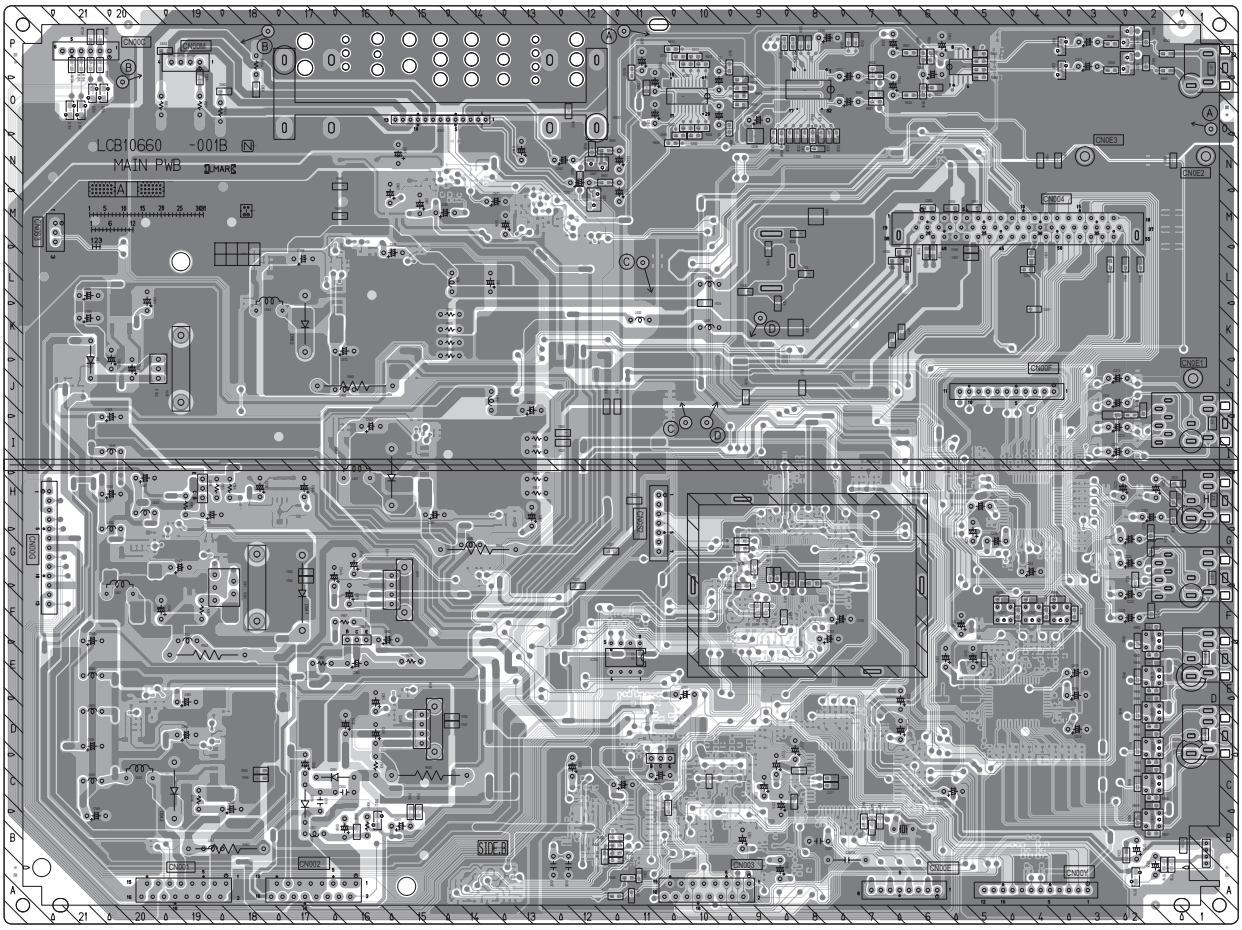


c30210001_0605_1/1_0.0

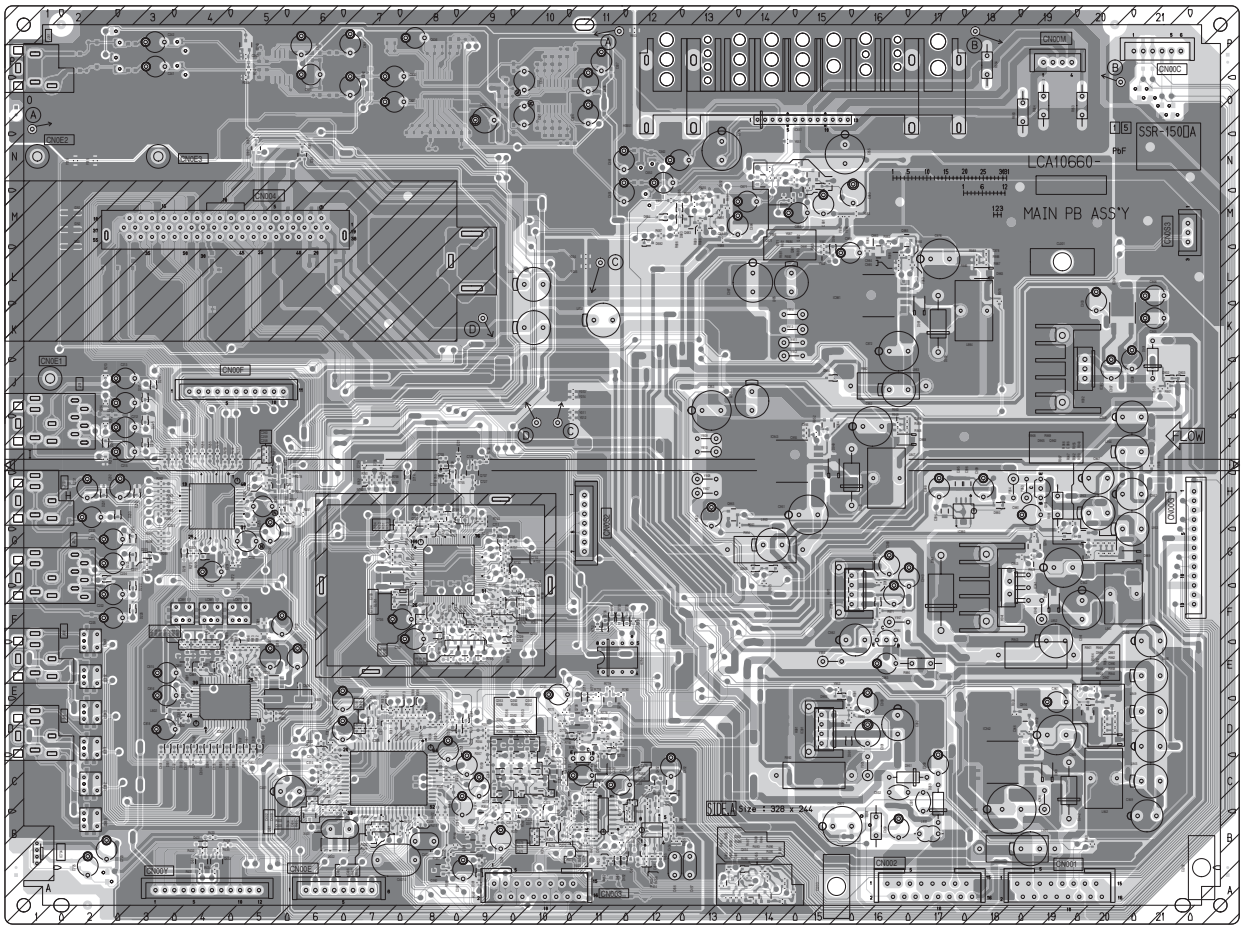
PATTERN DIAGRAMS

MAIN PWB PATTERN [SOLDER SIDE]

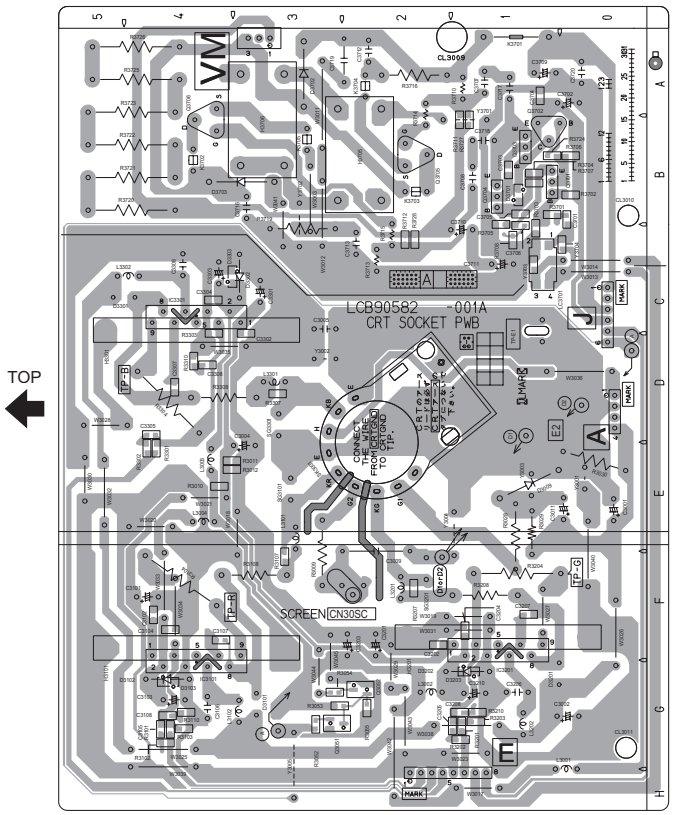
FRONT



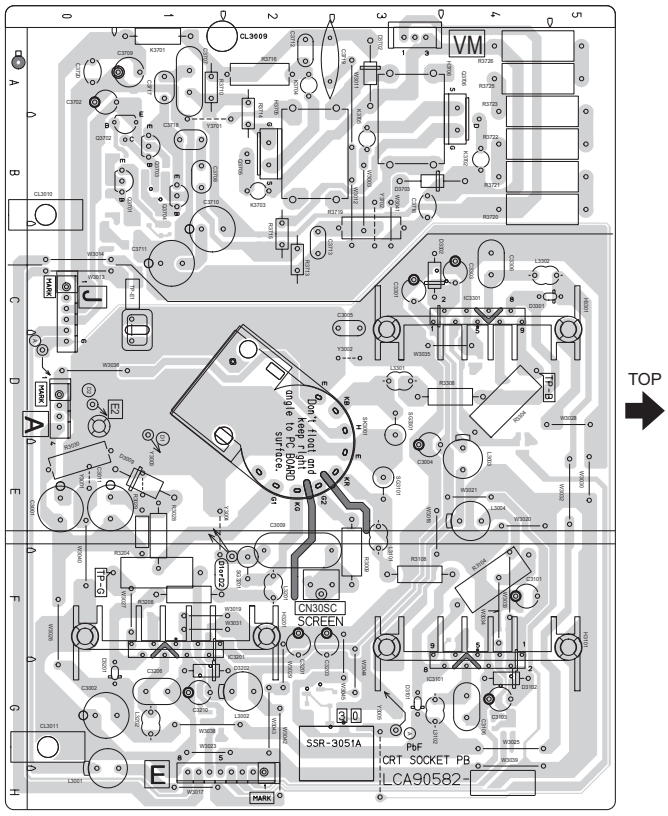
MAIN PWB PATTERN [PARTS SIDE]



CRT SOCKET PWB PATTERN [SOLDER SIDE]



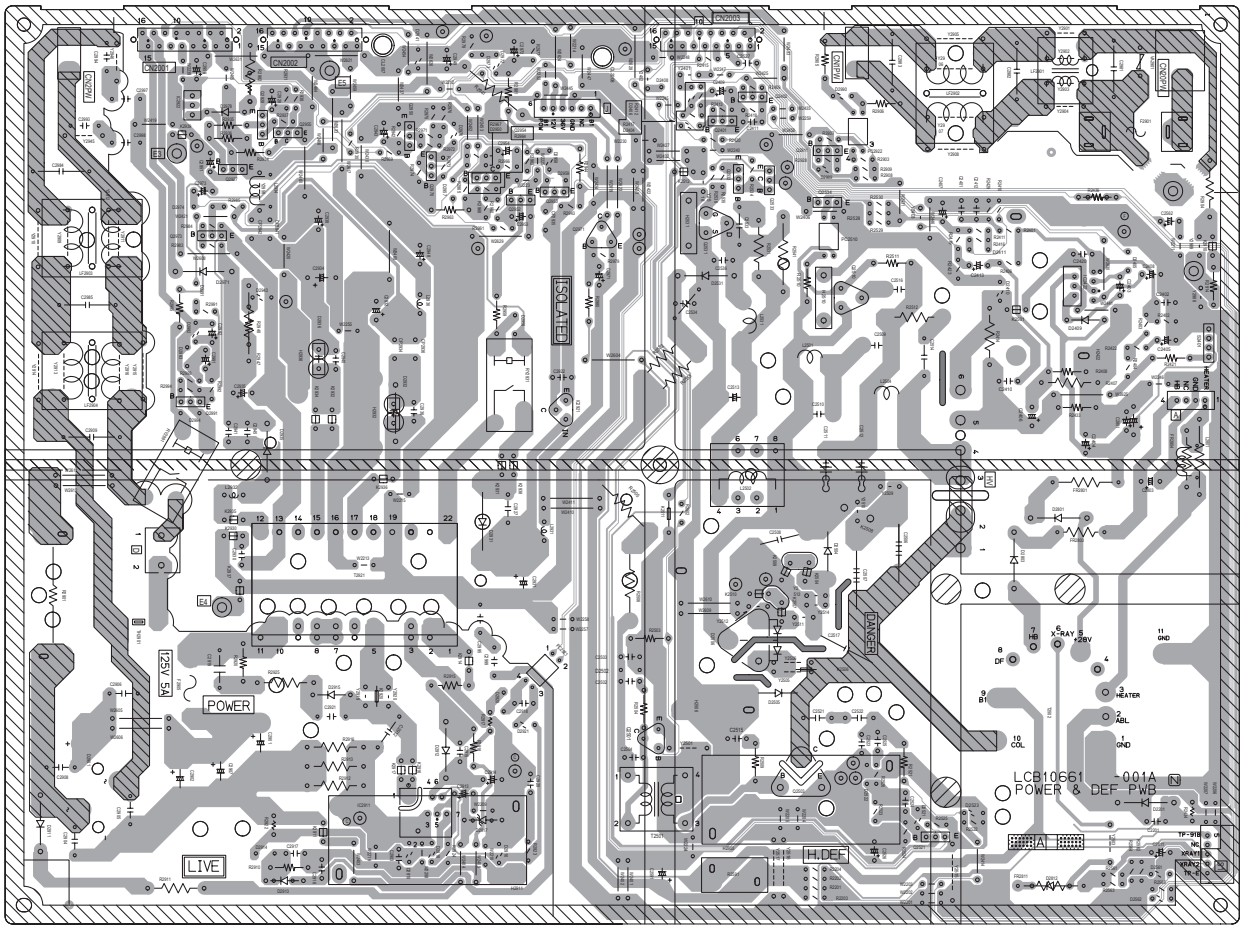
CRT SOCKET PWB PATTERN [PARTS SIDE]



POWER & DEF PWB PATTERN [SOLDER SIDE]

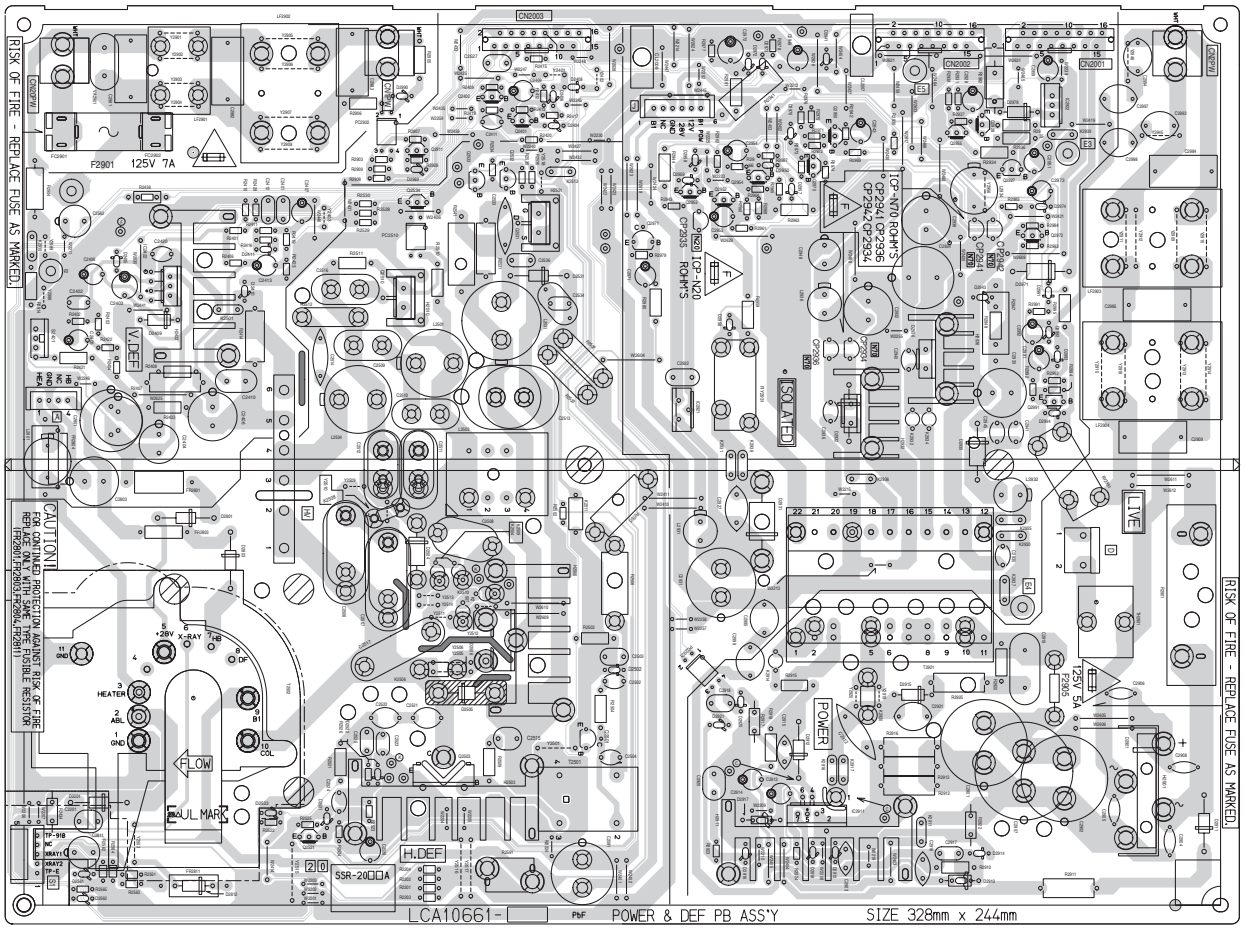
CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S)
AND ROHM'S MFR'S TYPE CP(S).

FRONT

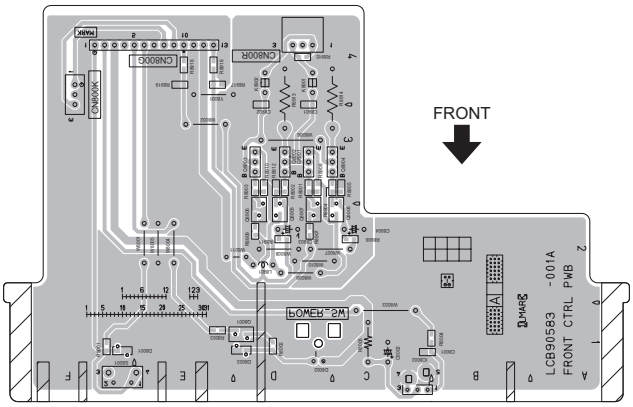


POWER & DEF PWB PATTERN [PARTS SIDE]

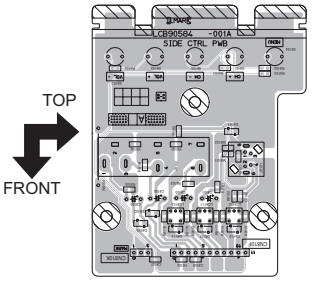
CAUTION :
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH SAME TYPE AND RATED FUSE(S)
AND ROHM'S MFR'S TYPE CP(S).



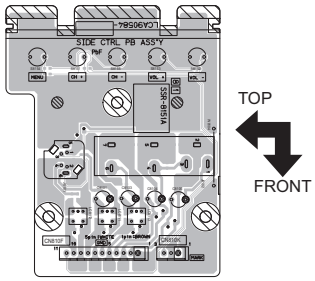
FRONT CONTROL PWB PATTERN [SOLDER SIDE]



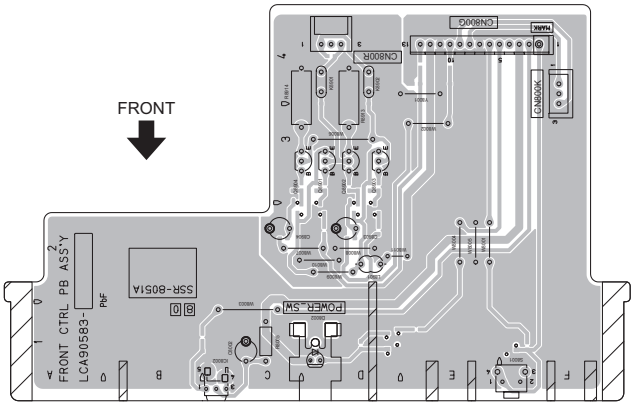
SIDE CONTROL PWB PATTERN [SOLDER SIDE]



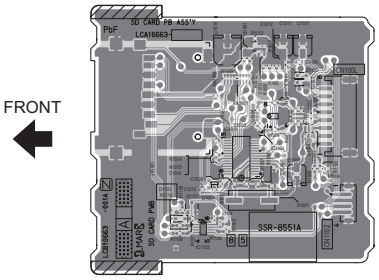
SIDE CONTROL PWB PATTERN [PARTS SIDE]



FRONT CONTROL PWB PATTERN [PARTS SIDE]



SD CARD PWB PATTERN



VOLTAGE CHARTS

<MAIN PWB>
[P.2-7 - P.2-8]

MODE PIN NO.	DC (V)
IC601	
1	4.5
2	4.5
3	4.5
4	4.5
5	4.5
6	4.5
7	4.5
8	0
9	8.3
10	4.5
11	0
12	9
13	0
14	4.5
15	4.5
16	4.5
17	4.5
18	4.5
19	4.5
20	4.5
IC621	
1	4.5
2	NC
3	4.5
4	NC
5	4.5
6	4.5
7	1
8	0.5
9	4.3
10	0
11	0
12	4.9
13	NC
14	4.9
15	NC
16	0
17	9
18	NC
19	4.4
20	NC
21	0
22	NC
23	2.9
24	3.3
25	3.2
26	4.5
27	4.5
28	4.5
29	NC
30	4.5
31	NC
32	4.5
IC641	
1	4.5
2	4.5
3	4.5
4	0
5	4.5
6	4.5
7	4.5
8	9
IC651	
1	18.5
2	0
3	0
4	0
5	7.8
6	1.1
7	19.5
8	19.3
9	9.2
10	0
11	0
12	0
13	NC
IC701	
1	NC
2	0
3	0
4	0
5	0
6	0
7	NC
8	NC
9	NC
10	3.3
11	3.2
12	0
13	NC
14	NC
15	NC
16	NC
17	3.2
18	3.2
19	0
20	3.2
21	NC
22	3.2
23	1.5
24	1.6
25	3.2
26	NC
27	NC
28	0
29	3.2
30	NC
31	NC
32	NC
33	NC
34	3.2
35	NC
36	NC
37	0
38	0
39	0
40	0
41	0
42	0
43	0.1
44	2.7
45	3.2
46	3.1
47	3.1
48	NC
49	NC
50	*
51	3.3
52	3.2
53	NC
54	3.1
55	3.2
56	3.2
57	3.1
58	3.1
59	NC
60	NC
61	0
62	1.7
63	NC
64	NC
65	NC
66	3.2
67	NC
68	NC
69	NC
70	NC
71	NC
72	NC
73	3.1
74	3.1
75	*
76	3.2
77	2.8
78	3.2
79	NC
80	NC
81	NC
82	3.2
83	3.2
84	3.3
85	3.3
86	NC
87	NC
88	NC
89	NC
90	NC
91	NC
92	0
93	NC
94	NC
95	NC
96	NC
97	NC
98	NC
99	NC
100	NC
IC702	
1	0
2	0
3	0
4	0
5	3.1
6	3.1
7	0
8	3.2
IC703	
1	3.2
2	3.2
3	NC
4	0
IC704	
1	NC
2	0
3	2.2
4	4.9
Q671	
E	0
C	7.9
B	0
Q682	
E	14.8
C	-0.4
B	15.2
Q683	
E	0
C	4.2
B	0.3
Q684	
E	0
C	0
B	0.6
Q701	
S	3.8
D	3.2
G	3.2
Q702	
S	3.8
D	3.3
G	3.2
Q703	
E	3.2
C	3.1
B	2.6
Q704	
E	3.2
C	3.2
B	2.6
Q705	
E	3.2
C	3.2
B	2.6
Q706	
E	0
C	*
B	0
Q707	
E	0
C	3.1
B	0
Q708	
E	0
C	0
B	0.6
Q709	
E	2.8
C	0
B	3.3
Q710	
E	0
C	3.4
B	0
Q711	
E	3.2
C	0
B	3.5

[P.2-9 - P.2-10]

MODE PIN NO.	DC (V)
IC251	
1	3.9
2	4.5
3	3.9
4	4.5
5	4.5
6	NC
7	4.9
8	4
9	4.5
10	3.9
11	4.5
12	4.5
13	0
14	5
15	4
16	4.5
17	0
18	4.5
19	4.5
20	0
21	5
22	0
23	0
24	4.5
25	0
26	4.9
27	4.9
28	NC
29	4.3
30	NC
31	0
32	NC
33	NC
34	9
35	0
36	3.9
37	4.5
38	0
39	4.5
40	3.6
41	4.5
42	NC
43	NC
44	0
45	NC
46	4.5
47	3.9
48	4.5
IC801	
1	2.8
2	0
3	2.8
4	0
5	2.2
6	0
7	0
8	1.8
9	0
10	2.8
11	0
12	2.8
13	0
14	2.2
15	0
16	1.8
17	2.4
18	0
19	4.9
20	0
21	4.1
22	3.4
23	0.8
24	0.8
25	0.8
26	0.8
27	0
28	0
29	3.4
30	0
31	5
32	1.5
33	0
34	2.1
35	2.4
36	2.1
37	0
38	0
39	0
40	1.7
41	0
42	2.4
43	0
44	0
45	1.8
46	5
47	2.2
48	0
Q001	
S	3.3
D	4.9
G	3.3
Q002	
S	3.3
D	4.9
G	3.3
Q241	
E	0
C	0
B	-1
Q242	
E	0
C	0
B	-1
Q243	
E	0.1
C	0
B	0
Q251	
E	2.3
C	0
B	1.7
Q252	
E	2.7
C	0
B	2.1
Q253	
E	2.4
C	0
B	1.8
Q871	
E	2.1
C	0
B	1.5
Q881	
E	2.8
C	0
B	2.1
Q891	
E	2.7
C	0
B	2.1
CN004	
1	5
2	0
3	3.3
4	0
5	2.5
6	0
7	3.3
8	NC
9	0
10	0
11	3.3
12	3
13	1.3
14	0
15	0
16	2.8
17	3.4
18	2.7
19	5
20	0
21	3.3
22	3.3
23	2.5
24	2.5
25	3.3
26	0.3
27	0
28	0
29	0
30	0
31	0
32	1.2
33	0
34	0
35	2.4
36	0
37	2.8
38	31.7
39	0
40	0
41	0
42	0
43	3.2
44	3.3
45	0.3
46	0
47	0
48	9
49	3.1
50	1.1
51	0
52	0
53	2.5
54	3.4
55	2.2

[P.2-11 - P.2-12]

MODE PIN NO.	DC (V)
IC301	
1	0
2	0
3	0
4	1.9
5	0
6	1.9
7	0
8	3.6
9	3.6
10	3.6
11	0
12	0
13	0
14	2.4
15	0
16	2.7
17	2.6
18	0
19	0
20	3.5
21	3.4
22	3.4
23	0
24	2
25	3.8
26	3.8
27	0.7
28	0
29	5
30	0
31	3.3
32	3
33	1.6
34	0
35	0
36	7.7
37	7.7
38	3.4
39	2.1
40	2.5
41	0
42	0
43	NC
44	0
45	NC
46	NC
47	4.2
48	4.4
49	5.5
50	NC
51	NC
52	0
53	0
54	NC
55	9
56	5
57	0
58	0
59	2.3
60	1.9
61	9
62	1.9
63	1.8
64	1.8
IC451	
1	2.5
2	1.5
3	2
4	0
5	2.7
6	0.9
7	10.3
8	11.9
IC471	
1	3.7
2	4.1
3	4.1
4	9
5	NC
6	NC
7	NC
8	0
9	0
10	7.4
11	0
12	7.4
13	3.6
14	7.7
Q301	
E	1.9
C	5
B	2.5
Q351	
E	2.6
C	0
B	1.8
Q352	
E	2.5
C	0
B	1.8
Q353	
E	2.6
C	0
B	1.9
Q354	
E	2.1
C	9
B	2.6
Q355	
E	2
C	9
B	2.5
Q356	
E	2.1
C	9
B	2.6
Q381	
E	5
C	9
B	5.6
Q382	
E	5.6
C	0
B	5
Q401	
E	5
C	9
B	5.7
Q431	
E	0
C	1.9
B	0.3
Q432	
E	0
C	2.9
B	0.2
Q451	
E	1.5
C	11.9
B	1.9
Q452	
E	3.1
C	11.9
B	3.7
Q453	
E	1.7
C	1.2
B	0.1
Q454	
E	0.6
C	6.9
B	1.2

[P.2-13 - P.2-14]

MODE PIN NO.	DC (V)
IC902	
1	4.9
2	0
3	3.2
IC941	
1	20.1
2	9.1
3	0
4	1.2
5	6.7
IC942	
1	20.1
2	5.2
3	0
4	1.2
5	6.7
IC943	
1	20
2	3.5
3	0
4	1.2
5	6.7
IC981	
1	20
2	2.6
3	0
4	1.3
5	6.7
IC991	
1	15.3
2	11.8
3	0
4	2.5
Q915	
E	0
C	6.7
B	0
Q916	
E	0
C	6.7
B	0
Q961	
E	0
C	0
B	0.6
Q962	
E	0
C	0
B	0.6
Q964	
E	0
C	6.7
B	0
Q965	
E	0
C	0
B	2.7
Q983	
E	0
C	6.7
B	0

<CRT SOCKET PWB>
[P.2-15 - P.2-16]

MODE PIN NO.	DC (V)
IC3101	
1	4
2	11.8
3	4
4	0
5	8.5
6	209
7	147
8	148
9	145
IC3201	
1	4
2	11.8
3	4
4	0
5	6.9
6	209
7	161
8	163
9	159
IC3301	
1	4
2	11.8
3	4
4	0
5	8
6	211
7	145
8	146
9	144
Q3051	
E	0
C	0
B	0.6
Q3052	
E	0
C	4
B	0
Q3701	
E	1.8
C	19.4
B	2.5
Q3702	
E	20.1
C	8.2
B	19.4
Q3703	
E	7.9
C	20.1
B	8.2
Q3704	
E	7.9
C	0
B	7.6
Q3705	
S	141.3
D	67.5
G	138.9
Q3706	
S	0
D	67.2
G	2.3

<POWER & DEF PWB>
[P.2-17 - P.2-18]

MODE PIN NO.	DC (V)
IC2422	
1	2.4
2	28.3
3	1.7
4	0
5	21.1
6	28.2
7	2.7
IC2911	
1	135
2	0
3	0
4	19.2
5	0.1
6	1.1
7	0.5
IC2921	
1	141.5
2	17.3
3	0
IC2922	
1	13.4
2	0
3	5
Q2401	
E	0
C	1.3
B	-0.5
Q2402	
E	0.6
C	11.9
B	3.3
Q2501	
S	0
D	32.5
G	2.4
Q2503	
E	0
C	140
B	0
Q2521	
E	2
C	11.9
B	2.5
Q2531	
S	0
D	20.1
G	10.2
Q2532	
E	10.3
C	11.9
B	10.3
Q2533	
E	10.2
C	0
B	10.3
Q2911	
E	0
C	3.6
B	-1.4
Q2927	
E	20.2
C	13.4
B	20.1
Q2928	
E	0
C	20.1
B	0
Q2950	
E	0
C	0
B	0.6
Q2952	
E	0
C	0
B	0.7
Q2953	
E	6.6
C	17.4
B	6.2
Q2954	
E	0
C	0
B	0.6
Q2955	
E	0
C	0
B	0.6
Q2970	
E	2.8
C	17.3
B	1.9
Q2971	
E	141.5
C	0.2
B	141.2
Q2991	
E	0
C	15.3
B	0
PC2921	
1	18.4
2	17.3
3	6.6
4	17.9
PC2922	
1	48.8
2	48.6
3	-1.2
4	17.3

<FRONT PWB>
[P.2-19 - P.2-20]

MODE PIN NO.	DC (V)
IC8002	
1	2.6
2	4.9
3	0
4	0
5	0
Q8001	
E	0
C	0
B	0.6
Q8901	
E	11.9
C	0.1
B	0
Q8902	
E	0
C	0
B	0.1
Q8903	
E	11.9
C	0
B	12.1
Q8904	
E	0
C	0
B	0.1
Q8905	
E	0.1
C	11.9
B	0
Q8906	
E	0
C	12
B	0
Q8907	
E	0
C	12
B	0
Q8908	
E	0
C	11.9
B	0

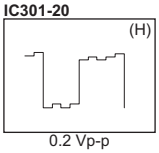
<SD CARD PWB>
[P.2-23 - P.2-24]

MODE PIN NO.	DC (V)
IC1001	
1	NC
2	1.7
3	1.6
4	0
5	3.4
6	5
7	3.4
8	0.1
9	3.1
10	3.4
11	NC
12	0
13	0
14	NC
15	NC
16	3.4
17	3
18	3
19	1.3
20	1.7
21	1.3
22	0
23	3.2
24	0
25	0
26	0
27	0
28	NC

WAVEFORMS

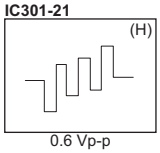
MAIN PWB(3/4)

IC301-20



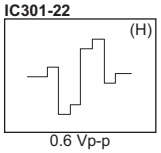
0.2 Vp-p

IC301-21



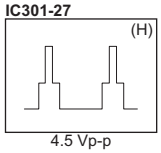
0.6 Vp-p

IC301-22



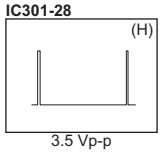
0.6 Vp-p

IC301-27



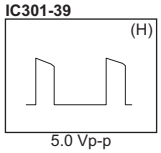
4.5 Vp-p

IC301-28



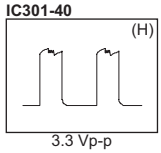
3.5 Vp-p

IC301-39



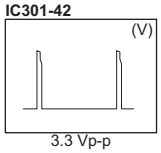
5.0 Vp-p

IC301-40



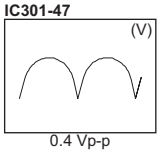
3.3 Vp-p

IC301-42



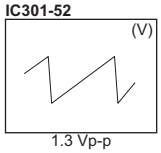
3.3 Vp-p

IC301-47



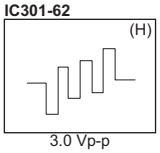
0.4 Vp-p

IC301-52



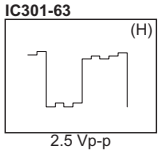
1.3 Vp-p

IC301-62



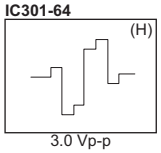
3.0 Vp-p

IC301-63



2.5 Vp-p

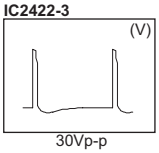
IC301-64



3.0 Vp-p

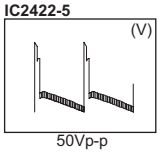
POWER & DEF PWB

IC2422-3



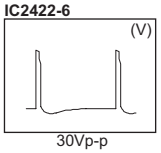
30Vp-p

IC2422-5



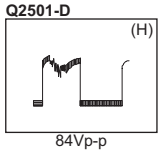
50Vp-p

IC2422-6



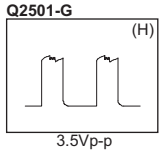
30Vp-p

Q2501-D



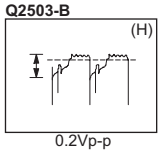
84Vp-p

Q2501-G



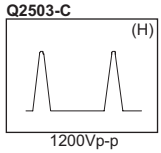
3.5Vp-p

Q2503-B



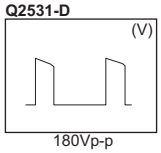
0.2Vp-p

Q2503-C



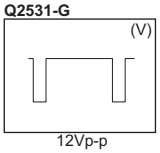
1200Vp-p

Q2531-D



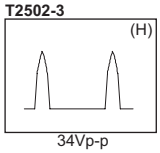
180Vp-p

Q2531-G



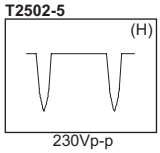
12Vp-p

T2502-3



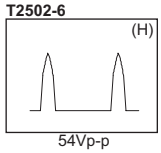
34Vp-p

T2502-5



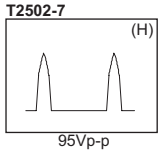
230Vp-p

T2502-6



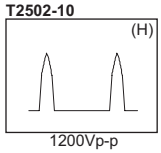
54Vp-p

T2502-7



95Vp-p

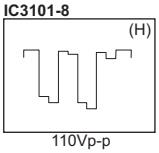
T2502-10



1200Vp-p

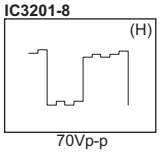
CRT SOCKET PWB

IC3101-8



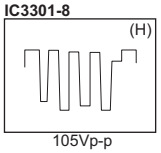
110Vp-p

IC3201-8



70Vp-p

IC3301-8



105Vp-p

JVC
Victor Company of Japan, Limited
Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA390)

Printed in Japan
VPT